HYUNDAI

User's Guide

MODELS : D32AM**
D42AM, D42EM****
D46AM, D46EM****
D55AM, D55EM****
D70AM, D70EM****

DIGITAL SIGNAGE

DIGITAL SIGNAGE

Contents

Major features 2
Safety Information 2
Be sure to understand 5
Check the product list 6
Proper location for product installation 7
Title and function of each part 8
Support timing for HDMI/DVI 13
Support timing for Analog RGB 14
Adjusting OSD and explanation of its function 15
Diagnosis 33
Specifications 35
* REMOTE CONTROL / RS232C COMMAND SPEC

Major features

This product has been designed to enable the user ease of use, and display information effectively and conveniently.

- TFT LCD Module adopted
- OSD control function
- High speed response
- Low power consumption
- Vivid digital color display
- Automatic Image control
- Built in multi-vision function
- HDMI, DVI, D-Sub input & DVI output

Safety Information

This product is designed to ensure user's safety.
Avoid the following items to prevent serious electric shock and other dangers.

- Do not place wet objects on or around the product or the power cord.
- Do not cover or insert anything over or into the ventilation openings.
- Do not place in a location where damage can be caused by oil, smoke, high temperature, high humidity, dust etc.
- The product is not suitable for use at visual display workplaces according to §2 of the German Ordinance for Work with Visual Display Units.
- The main plug of the power supply cord shall remain readily operable.
- An apparatus with CLASS I construction shall be connected to a Mains socket outlet with a protective earthing connection.
- Make sure that the power cord and other cables are correctly plugged in.
- Plug the power cord correctly into the end, do not wobble/jiggle, it may cause electric shock fire.

- Do not touch the power cord with wet hands, it may cause electric shock.
- Overloaded AC outlets and extension cables are as dangerous as the power cord being damaged, call service engineer for replacement as it may cause electric shock or fire.
- Do not use multiple devices in a single power outlet, it may cause overheating or fire.
- Do not use or place sharp objects near the LCD surface, as this can cause damage to the screen itself.
- When cleaning the LCD screen / Surface, do not use chemical cleaning products as this can seriously damage the special coatings on the screen. Only use water to dampen a soft cloth and lightly clear the screen.
- Over time dust deposits can build up inside the product, this can cause the product to overheat thus causing premature malfunction or fire. Please do not attempt to clean the inside of the product yourself, please contact the local service agent.
- Do not use alcohol or strong chemical solvent such as methyl, ethyl or a Isopropyl.
- In the case of cleaning, be sure to remove the power cord and wipe with a soft dry fabric.
- Keep batteries for the remote control out of children's sight.
- Batteries should be inserted using the correct polarity (+,-).
- Use only new batteries, do not mix old & new.
- Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions.
- Place unit on a stable bracket or surface.
- More than 2 people should work together when moving or installing.
- Do not hang on or jump to the product or mounting rack.
- When the product is left unused for a long time, be sure to unplug the power cord.
- In the case of damage or breakage do not attempt to self repair, please contact local service engineer.

- In case of Kiosk Model, keep installing the product on the flat location and fixing the wheels not to move itself or fall down.
- On Kiosk Model, make sure to turn off the power before connecting cables.
- This manual contains general instructions for the display products only so refer to the provided CD-ROM manual and the driver installation manual for the driver installation instructions for touch screen and/or touch screen itself.
- The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- Shall be connected to a MAINS socket outlet with a protective earthing connection.
- The disconnect device shall remain readily operable.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.
- Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

Be sure to understand

Image quality of the product

⚠ CAUSE

Due to the nature of LCD's property, Afterimage can occur. Afterimage appears when identical frames / images are displayed continuasly. If displayed for prolonged periods of time this can become permanent.

⚠ PREVENTION

When you display a freeze frame for a long time, lower the brightness and contrast (Brightness, 70/ Contrast, 80). Also it can be decreased by using Pixelshift function.

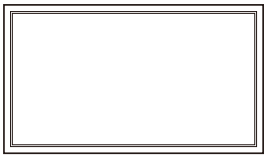
⚠ COUNTERMEASURES

Temporary afterimage can be alleviated by displaying white or moving frame about 10 hours.(But, permanent afterimage cannot be disappeared according to the property of LCD) This method is used to remove temporary afterimage that may occur after displaying a still frame for a certain time.
It can take several minutes or hours to remove afterimage according to the severity. In the case that your cannot avoid displaying identical still image continuously, you can prevent it by displaying moving image for 2 or 3 minutes in every hour. As the brightness of still image and time of display are the cause of afterimage, you are recommended to lower the brightness in that case.

! Above problem shall not be covered by warranty.

Check the product list

Please check the following components provided with the product after you open the box.

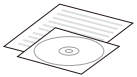


Remote control

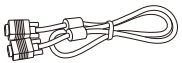
Power Cord

HDMI cable

HDMI to DVI Cable (Option)



CD Manual &Sheet



D-SUB Cable

RS232C Cable

! please check the following components provided with the product after you open the box and contact the dealer if any missing.

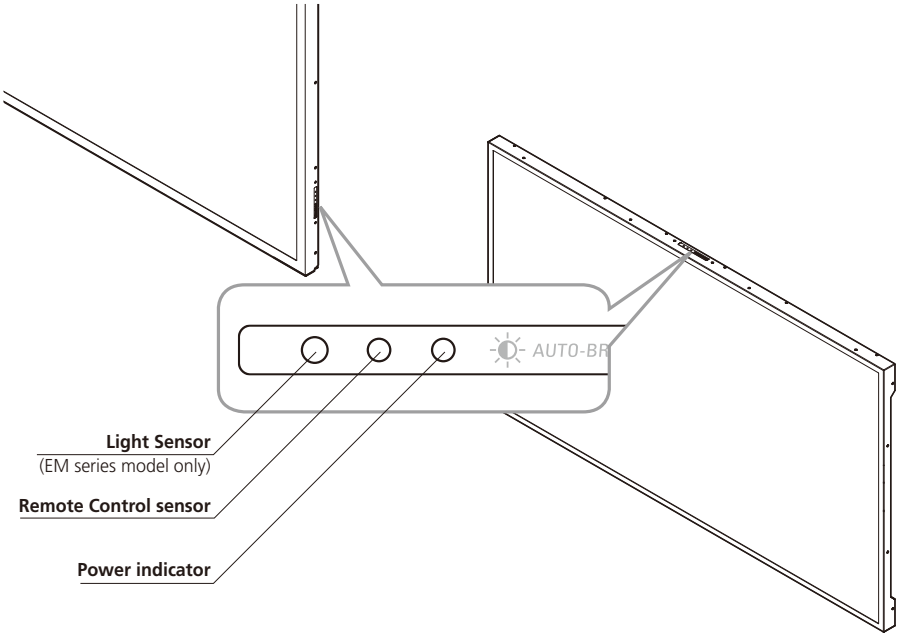
** The contents may vary depending on models and sometimes the contents may be attached on the product.*

Proper location for product installation

1. Locate the product at least 30cm away from the electric appliance or heating product.
2. The product must be placed at least 10cm away from the wall and ground.
3. Keep the product out of direct ray of light and locate screen not to be reflected by the sunlight.
4. Make sure the mounting rack firmly tightened before installation.

! **Please take extra care during installation, it is possible to cause damage if the unit is handled badly or knocked.**

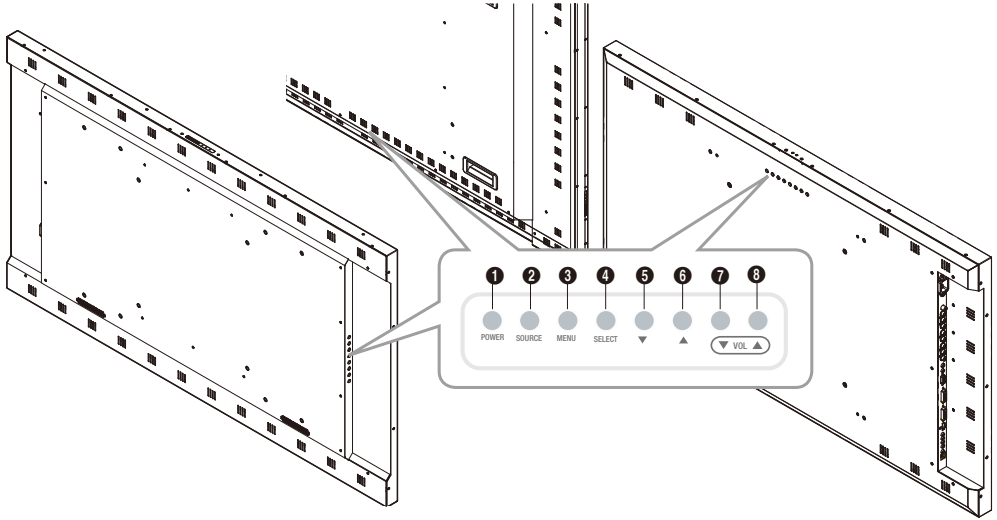
Title and function of each part



✔ *The locations may vary depending on model.*

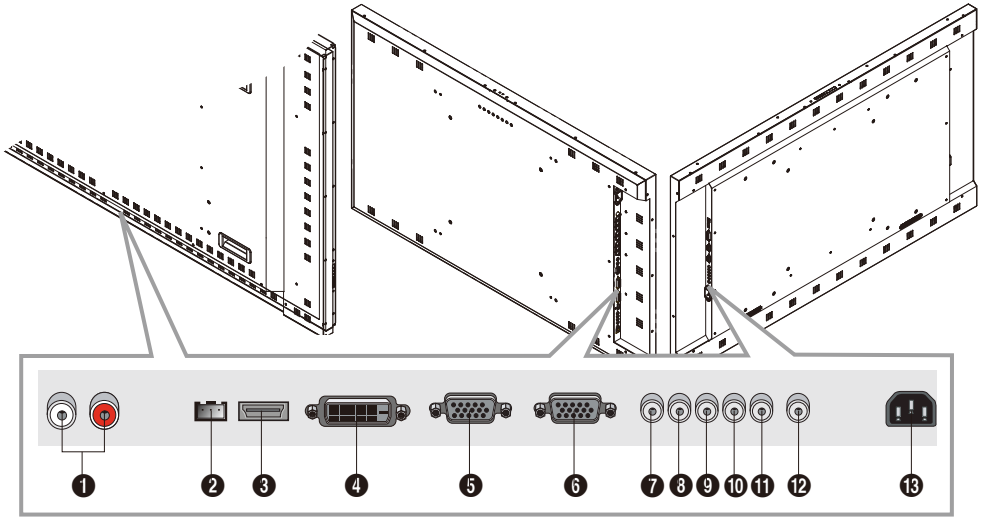
Control Panel

1. Power button ; to turn the power on or off.
2. Input selection button : to select other connected device.
3. Menu button : to display menu or exit from the menu.
4. Select button.
5. To move down in OSD menu.
6. To move up in OSD menu.
7. To move left and control the volume down in OSD menu.
8. To move right and control the volume up OSD menu.



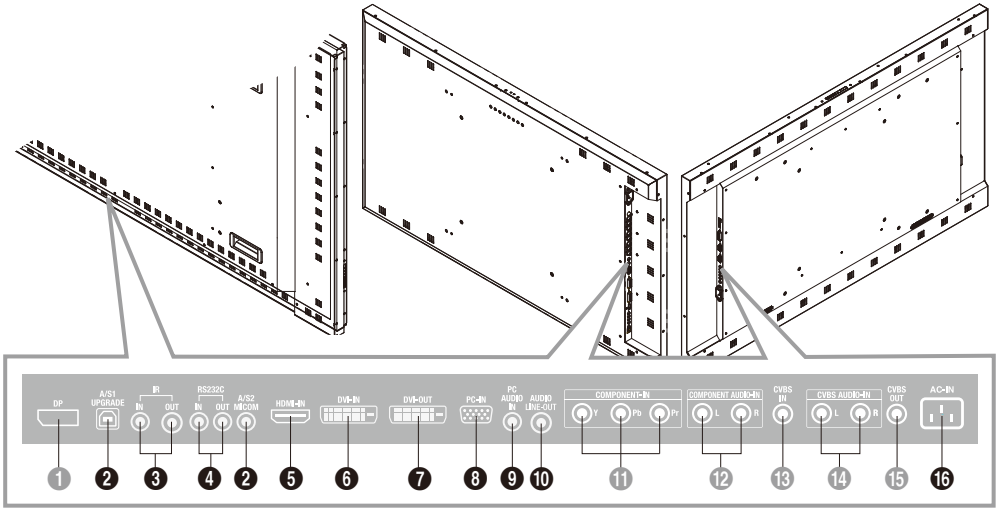
✔ *The locations may vary depending on model.*

Terminal panel - type A



1. SPEAKER OUT
2. PIR SENSOR IN (Option)
3. HDMI IN
4. DVI IN
5. PC D-SUB OUT
6. PC D-SUB IN
7. PC AUDIO IN
8. 11. 12. UPGRADE Port :
   * this port is used for upgrade service and not for general users.
9. RS-232C IN
10. RS-232C OUT
13. AC IN

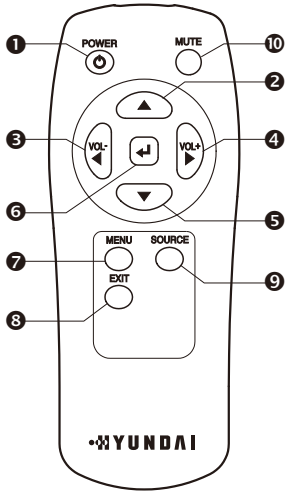
Terminal panel - type B



1. DisplayPort (Option)
2. **UPGRADE Port :**
   *this port is used for upgrade service and not for general users.
3. **IR - IN/OUT**
4. **RS232C- IN/OUT**
5. **HDMI IN**
6. **DVI IN**
7. **DVI OUT**
8. **PC-IN**
9. **PC AUDIO-IN**
10. **AUDIO LINE-OUT**
11. COMPONENT-IN (Option)
12. COMPONENT AUDIO-IN (Option)
13. CVBS-IN (Option)
14. CVBS AUDIO-IN (Option)
15. CVBS-OUT (Option)
16. **AC-IN**

*** The items No. 1 and 11–15 are optional items.**

Remote control



1. To turn the power on or off.
2. Move up in OSD menu.
3. To move left or control the volume down in OSD menu.
4. To move right or control the volume up in OSD menu.
5. To move down in OSD menu.
6. [ENTER] Select in OSD menu.
7. Display the OSD menu.
8. Close the OSD menu.
9. Display the menu of signal source and choose it.
10. Temporary sound switch off.

[TIP] If it doesn't need to control display by a remote-controller, press button of remote-controller in order following.

MENU → SOURCE → EXIT → ▼ → ENTER(↵)

* Press button once again in order above so that original condition is returned.

Support timing for HDMI/DVI

NO	Resolution	Horizontal frequency (KHz)	Vertical frequency (Hz)
1	480p	640 x 480p	60
2	576p	720 x 576p	50
3	720p	1280 x 720p	50 / 60
4	1080i	1920 x 1080i	50 / 60
5	640 x 480	31.47	59.94
6	800 x 600	37.88	60.32
7	1024 x 768	48.36	60
8	1360 x 768	47.70	60
9	1280 x 1024	63.98	60
10	1920 x 1080	67.50	60
11	1080p	1920 x 1080p	60

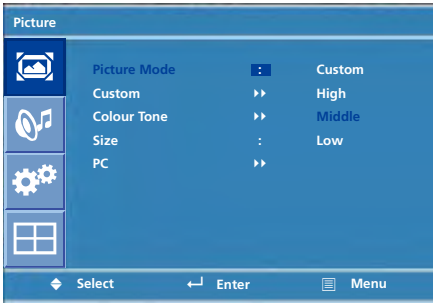
Support timing for Analog RGB

NO	Resolution	Horizontal frequency (KHz)	Vertical frequency (Hz)
1	640 x 480	31.47	59.94
2	800 x 600	37.88	60.32
3	1024 x 768	48.36	60.00
4	1360 x 768	47.71	60.00
5	1280 x 1024	63.98	60.00
6	1920 x 1080	67.50	60.00

Adjusting OSD and explanation of its function

How to Select the Picture Mode

Users can automatically adjust the picture mode according to the input mode.

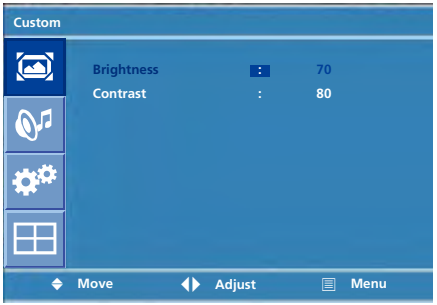


1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select “Picture” Icon. “Picture mode” is highlighted.
3. Press ▶ or ↵ buttons to select “Picture mode”.
4. The menu changes in the following order.
   Custom -> High -> Middle -> Low
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

✔ *Menu of PC doesn’t appear on OSD when user uses HDMI and DVI signal.*

How to Set the Desired Picture

Users can manually adjust their desired picture

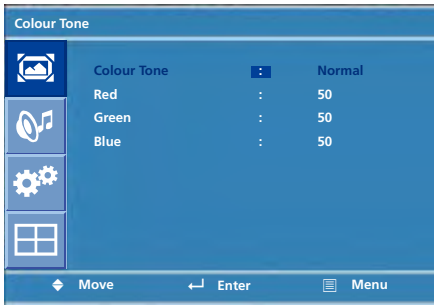


1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Picture" Icon.
   "Picture mode" is highlighted.
3. Press ▲ / ▼ buttons to move to "Custom" and press ▶ or ↵ buttons to select "Custom".
4. Select required option by pressing the ▲ / ▼ or ↵ button, then Press ◀ / ▶ button to adjust.
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

- Brightness : Adjust the brightness of the entire picture.
- Contrast : Adjust the brightness and darkness of the object and backgrounds.

How to Select a Colour Tone

Users can adjust Color as users want.

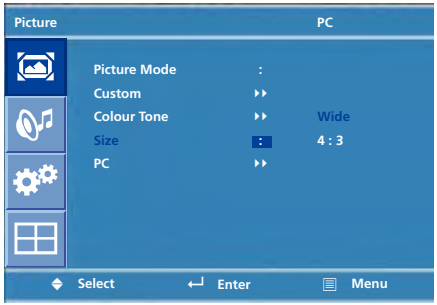


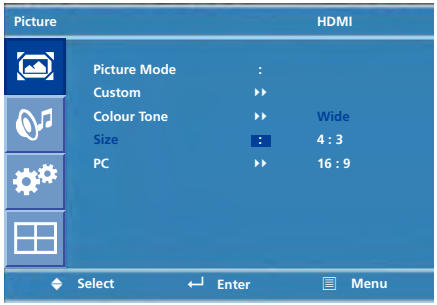
1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Picture" Icon.
   "Picture Mode" is highlighted.
3. Press ▲ / ▼ buttons to move to "Colour Tone"
4. Press ▶ or ↵ buttons to select "Colour Tone" .
5. Press ▲ / ▼ buttons, then the menu changes in the following order.
   Custom -> Cool2 -> Cool1 -> Normal -> Warm1 -> Warm2
6. Press EXIT button to escape OSD menu or press MENU button to return to the previous menu.

- Custom : When the user wants to set the degree of RGB directly.
- Cool : For cool colors with bluish tone.
- Normal : For a general Colour Tone.
- Warm : For warm colors with reddish tone.

How to Set the Display Size

Users can adjust the display scale as they want





1. Press Menu button. Menu items appear on the screen.
2. Press ↵ button to select “Picture” Icon. “Picture Mode” is highlighted.
3. Press ▲ / ▼ buttons to move to “Size”.
4. Press ◀ / ▶ or ↵ buttons and press ▲ / ▼ then the mode change in the following order.
   - Wide -> 4 : 3

* The display size aspect mode change in the HDMI, DVI mode in the following order.
   - Wide -> 4 : 3 -> 16 : 9

5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

✔ *Menu of PC doesn’t appear on OSD when user uses HDMI and DVI signal.*

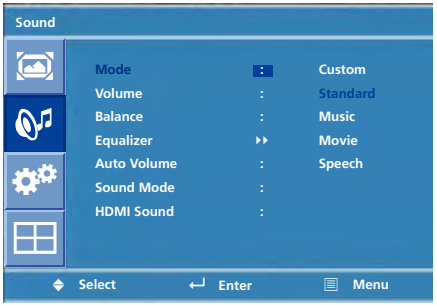
How to set image adjustment in PC mode (Supported only in PC mode)

1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Picture" Icon.
   "Picture Mode" is highlighted.
3. Press ▲ / ▼ buttons to move to PC and press ▶ or ↵ buttons to select to "PC"
   "Auto Adjust" is high lighted.
4. Press ↵ button to execute the "Auto Adjust"
5. Select the required option by pressing the ◀ / ▶ or ↵ button, then press ◀ / ▶button to adjust
6. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

- Auto Adjust : Horizontal/vertical positions are automatically adjusted.
- Phase : To eliminate the shake of the picture.
- H-Position : To adjust the horizontal position of the picture.
- V-Position : To adjust the vertical position of the picture.
- Frequency : To eliminate the shake of picture.
- Resolution : Selecting resolution is allowed to only set to 1024x768, 1280x768, 1360x768, 1366x768.
  Select corresponsive resolution with specified resolution of image.

How to Select the Audio Mode

Users can adjust sound mode automatically as they want.

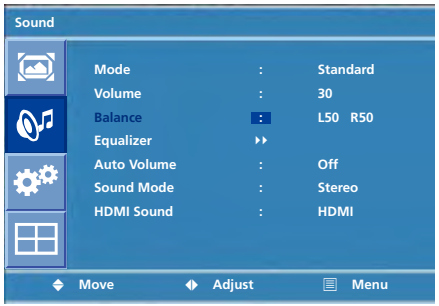


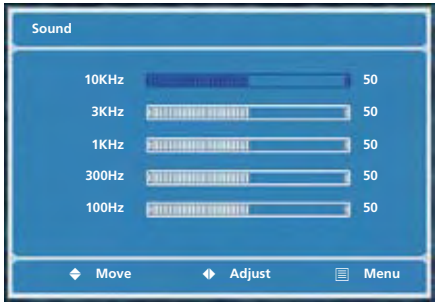
1. Press Menu button. Menu items appear on the screen.
2. Press ▲ / ▼ buttons to move to “Sound” Icon.
3. Press ↵ button to select “Sound” Icon. “Mode” is highlighted.
4. Press ▶ or ↵ buttons, to select to Sound mode. then the menu changes in the following order. Custom->Standard -> Music -> Movie -> Speech
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

- Custom : When the user wants to set the values directly.
- Standard : For the general sound. Most audio contents are appropriate to this mode.
- Music : For enjoying original sound.
- Movie : Grandiose sound.
- Speech : Clear sound.

How to Adjust the Desired Audio Mode

Users can adjust sound mode automatically as they want.



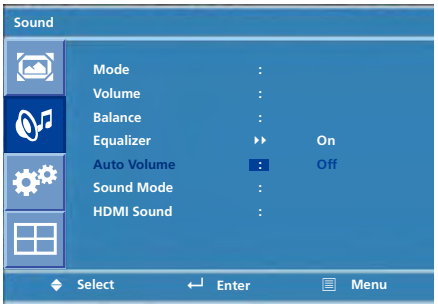


1. Press Menu button. Menu items appear on the screen.
2. Press ▲ / ▼ buttons to move to "Sound" Icon.
3. Press ↵ button to select "Sound" Icon. "Mode" is highlighted.
4. Press ▲ / ▼ buttons to move to "Balance" or "Equalizer" .
5. Press ↵ buttons to select "Balance" or "Equalizer". Balance or Equalizer menu appears.
6. Select required option by pressing the ▲ / ▼ buttons, then Press ◀ / ▶ buttons to adjust.
7. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

- Balance : Adjusts the balance of left and right speakers.
- Equalizer : Adjusts the audio output signal in the desired band.

How to Select Auto Volume

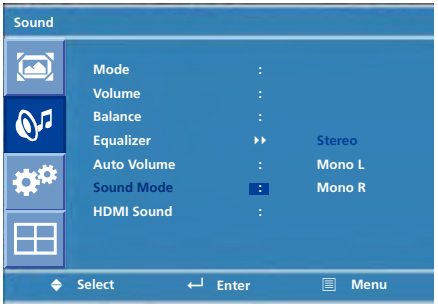
This function will automatically give a similar volume size to each channel.



1. Press Menu button.
   Menu items appear on the screen.
2. Press ▲ / ▼ buttons to move to "Sound" Icon.
3. Press ↵ button to select "Sound" Icon.
   "Mode" is highlighted.
4. Press ▲ / ▼ buttons to move to "Auto Volume".
5. Press ◀ / ▶ or ↵ buttons to select "On/Off".
6. Press ▲ / ▼ or ↵ buttons to set to "On/Off".
7. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu

How to Select Sound Mode

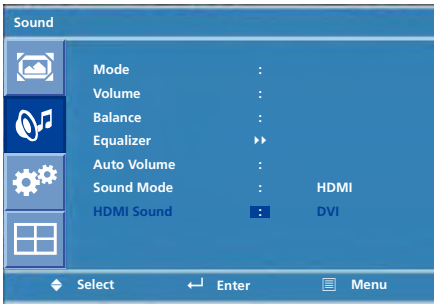
Depending on the particular program being broadcast, you can select stereo or mono.



1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Sound" Icon.
   "Mode" is highlighted.
3. Press ▲ / ▼ buttons to move to "Sound Mode".
4. Press ▶ or ↵ buttons to select to "Sound Mode".
5. Press ▲ / ▼ buttons to select to "Stereo"," Mono L"or "Mono R.
6. Press exit button to escape OSD MENU or press MENU button to return to the previous menu

- Choose "Stereo" for channels that are broadcasting in Stereo.
- Choose "Mono" for channels that are broadcasting in Mono, or if you are having difficultly receiving a Stereo signal.

How to Select HDMI Sound

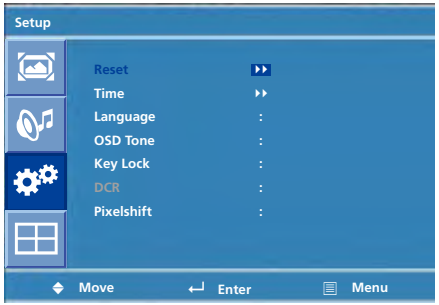


1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select “Sound” Icon.
   “Mode” is highlighted.
3. Press ▲ / ▼ buttons to move to “HDMI Sound”.
4. Press ▶ or ↵ buttons to select to “HDMI Sound”.
5. Press ▲ / ▼ buttons to select to “DVI”.
6. Press exit button to escape OSD MENU or press MENU button to return to the previous menu

✔ *HDMI : Audio signal is included in the HDMI signal.*

✔ *DVI : If audio signal is not inclulded in the HDMI signal, you can listen audio from PC audio port.*

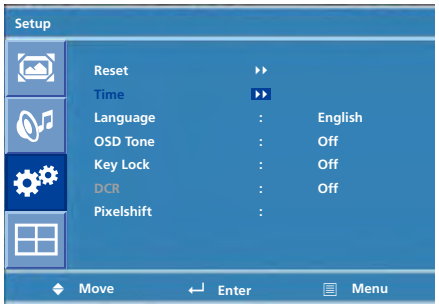
How to Reset



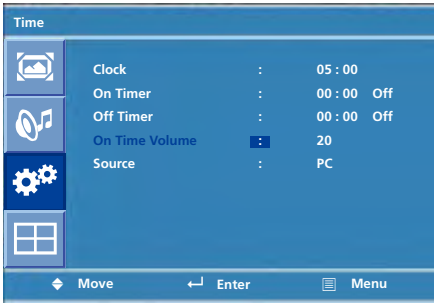
1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Setup" Icon.
   "Reset" is highlighted.
3. Press ▶ or ↵ buttons to select to "Reset".
4. Press ↵ buttons to choose to "Reset".
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

When you select "Reset" user setting Value will initialize.

How to Set Clock,Sleep Time, ON/OFF Time



1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Setup" Icon.
   "Reset" is highlighted.
3. Press ▲ / ▼ buttons to move to "Time".
4. Press ▶ or ↵ buttons to select "Time".
   Time menu appears, then "Clock" is highlighted.
5. Press ◀ / ▶ buttons to move between Hour, Minute and Press ▲ / ▼ buttons to set Hour, Minute.

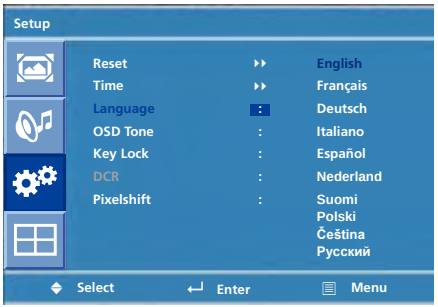


<Go to step 6 if you need to set the "On or Off Timer">
6. Press ▲ / ▼ buttons to move to "On or Off Timer".
7. Press ▶ or ↵ buttons to select "On or Off Timer" .
8. Press ◀ / ▶ buttons to move between Hour, Minute and on/off and Press ▲ / ▼ buttons to set Hour, Minute and on/off

<go to step 9 if you need to set the "On Time Volume">
9. Press ▲ / ▼ buttons to move to "On Time Volume".
10. Press ◀ / ▶ buttons to adjust Volume.

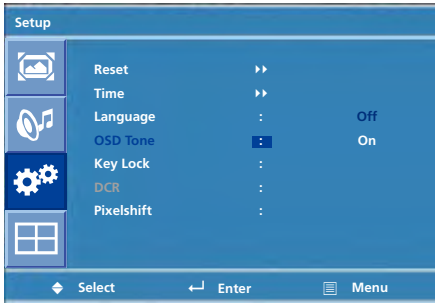
<go to step 11 if you need to set the "Source">
11. Press ▲ / ▼ buttons to move to "Source"
12. Press ▶ or ↵ buttons to select to "Source"
13. Press ▲ / ▼ buttons to set to Source

Choosing the Your Languages



1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Setup" Icon.
   "Reset" is highlighted.
3. Press ▲ / ▼ button to move to "Language" and press ▶ or ↵ button to select to “Language”.
4. Press ▲ / ▼ buttons to set to language.
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

How to set OSD Transparency



1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Setup" Icon.
   "Reset" is highlighted.
3. Press ▲ / ▼ buttons to move to "OSD Tone"
4. Press ▶ or ↵ buttons to select to "OSD Tone".
5. Press ▲ / ▼ or ↵ buttons to set to "On/Off".

How to Set Key-Lock

User can lock the control buttons on the front bottom of the Monitor.

1. Press Menu button.
   Menu items appear on the screen.
2. Press ▲ / ▼ button to move to "Setup" Icon.
3. Press ↵ button to select "Setup" Icon.
   "Reset" is highlighted
4. Press ▲ / ▼ buttons to move to "Key Lock".
5. Press ▶ or ↵ buttons to select to "Key Lock".
6. Press ▲ / ▼ or ↵ buttons to set to "On/Off".
7. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

✔ *If you turn off the AC power, key-lock function is unlock.*

How to select Pixelshift

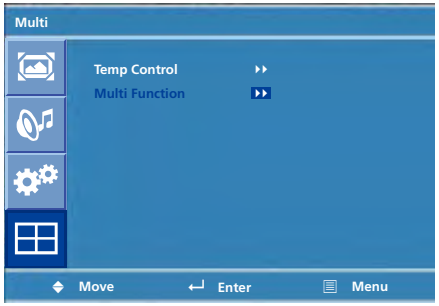
This function prevents image burn-in problem on LCD screen.

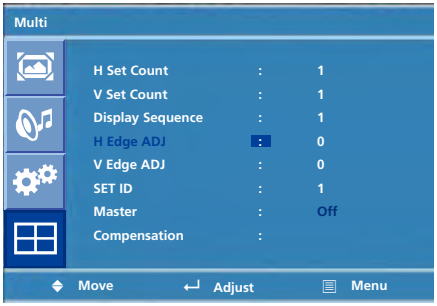
1. Press Menu button.
   Menu items appear on the screen.
2. Press ▲ / ▼ button to move to “Setup” Icon.
3. Press ↵ button to select "Setup" Icon.
   "Reset" is highlighted.
4. Press ▲ / ▼ buttons to move to “Pixelshift”.
5. Press ▶ or ↵ buttons to select to "Pixelshift".
6. Press ▲ / ▼ or ↵ buttons to set to "On/Off".
7. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

✔ *When Pixelshift option is on, the image moves on the display periodically. It might be seen like the image pops but not the symptoms of display error.*

✔ *Pixelshift function is to decrease image sticking.*

How to Set the Multi Function





1. Press Menu button. Menu items appear on the screen.
2. Press ▲ / ▼ button to move to "Multi" Icon.
3. Press ↵ button to select "Mutli" Icon.
4. Press ▲ / ▼ buttons to move to “Mutli Function”.
5. Press ▶ or ↵ buttons to select to “Mutli Function”.
4. Press ▲ / ▼ buttons to set up and change the location of the screen to be displyed. H Set Count/ V Set Count/Display Sequence / H Edge ADJ / V Edge ADJ / SET ID/ Master

(Example of installation) install 3x2 with 6 units

Product 1	Product 2	Product 3
Product 4	Product 5	Product 6

Set up Value

installation item	Product 1	Product 2	Product 3	Product 4	Product 5	Product 6
H Set Count	3	3	3	3	3	3
V Set Count	2	2	2	2	2	2
Display Sequence	1	2	3	4	5	6
H Edge ADJ / V Edge ADJ	These are the set up value to make up the un-displayed area of Bezel Part. It can be adjustable according to the contents					
SET ID	1	2	3	4	5	6
Master	You are recommended to use the Master on state only one of products that you are using					

[Cautions]

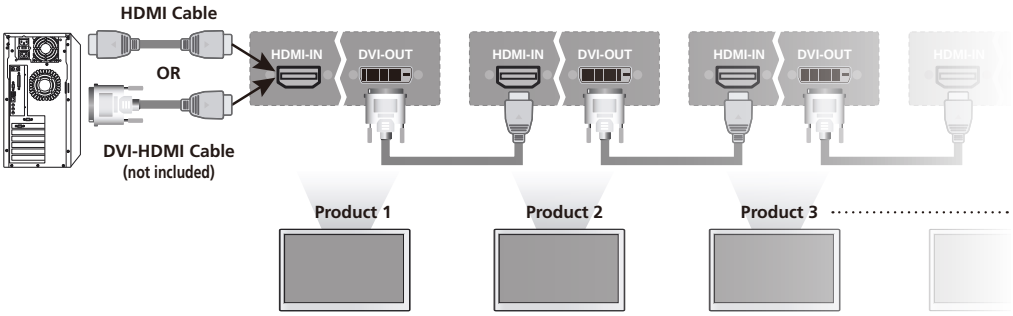
- In case of connecting the products in series from the input device(HDMI ➔ analog RGB ➔ component ➔ video), a distributor is recommended in order because there may be loss of screen quality.
- You are recommended to use the progressive frequency of HDMI in case of using multi-vision function. (It may not be displayed properly when using Video input or interlace frequency)

✔ Master : In case of RS232C Communication, If you control products by “all” protocol, the PC received the return message from master.

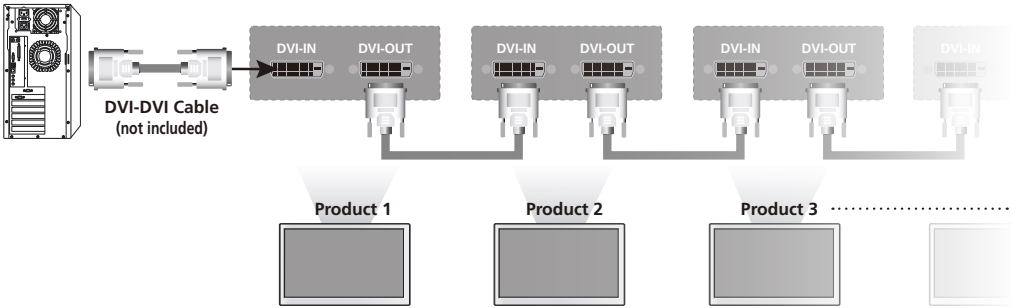
DIGITAL SIGNAGE

To connect multiple monitors to the PC in HDMI/DVI mode

- D**A model**
example : D46AMA



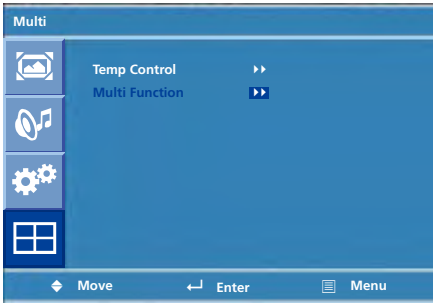
- D**B model**
example : D46AMB

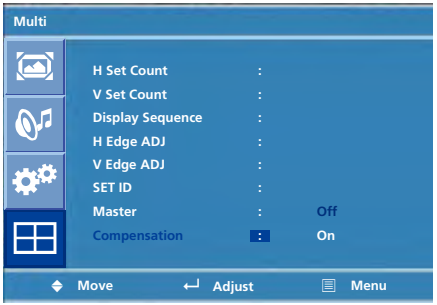


✔ ***When multi-connecting in/out cascade format, loss of display quality can happen. We recommend using a cable distributor.***

How to select Compensation

This function emphasizes the signal level to prevent the signal loss when the displays are chained by HDMI cable.

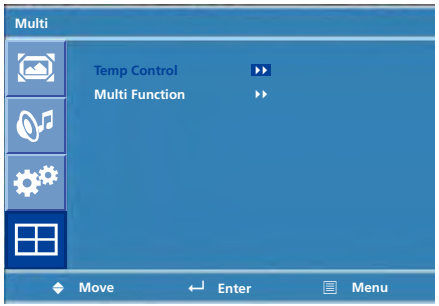




1. Press Menu button. Menu items appear on the screen.
2. Press ▲ / ▼ button to move to "Multi" Icon.
3. Press ↵ button to select "Mutli" Icon.
4. Press ▲ / ▼ buttons to move to “Mutli Function”.
5. Press ▶ or ↵ buttons to select to “Mutli Function”.
4. Press ▲ / ▼ buttons to move to “Compensation”.
5. Press ▶ or ↵ buttons to select to “Compensation”.
6. Press ▲ / ▼ or ↵ buttons to set to “On/Off”.
7. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

✔ *In the multi connection, in the product 1 set compensation is on, and the other sets compensation is off in the other product.*

How to check the currently temperature



1. Press Menu button. Menu items appear on the screen.
2. Press ▲ / ▼ button to move to “Multi” Icon.
3. Press ↵ button to select “Multi” Icon, then “Temp Control” is highlighted.
4. Press ▶ or ↵ buttons to select to “Temp Control”.
   The current temperature is displayed.
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

Diagnosis

When the product is not working properly, please check before you call customer center.

Symptoms	How to solve the problem
Screen displays late after the power is on.	It happens not to show the screen noise when the power is on. Therefore it is not a defect. But if the screen doesn't show up within 5 minutes from turning on, please contact the customer center.
The screen is too dark or bright?	Adjust the brightness or contrast.
The screen doesn't show up indicating "Out of range".	You are using a signal which is outside the operating frequencies of the product (Unsupported), please change you video signal.
when the screen is scrambled.	please check the cable connection and the signal generator and contact customer center.
Automatic switching-on function is not working / the input data were disapperared when reboot the system after setting up the time	Automatic switching-on function is working when the product has been turned off via remote control or power button on main body. It is because that the set-up values are deleted when the power cord is unplugged.
The screen and sound are not synchronized	Check if the power is on, suspended or is correctly plugged into the outlet. Plug the power cord of other peripheral device to the outlet that the product is being connected.

Symptoms	How to solve the problem
The screen displays without the sound.	check the volume up and down with remote control and audio connection cable
No sound from either right speaker or left speaker.	Confirm the status of the sound balance on OSD menu and check the connection of speaker cable.
Remote control doesn't work.	Check if any foreign substances in the sensor and the polarity of battery inserted. If the batteries are drained, replace them with new batteries.
PC D-SUB doesn't work.	Set up the resolution referring to frequency table of input terminal. And re-boot the system as it supports Plug and Play.

• If any problem unsolved by above diagnosis, please call customer center.

Specifications

Model	D32AM*
LCD	1920 x 1080 Pixel (Full HD)
Screen size (HxV/mm)	698.4(H) x 392.9(V)
Recommended resolution	1920 x 1080 @60Hz
Power	AC 100- 240V 50/60Hz
Consumption (Typical)	60 W (typical)
Operating Temperature	0 ~ 40°C
Control type	Remote control, key control

Model	D42AM*
LCD	1920 x 1080 Pixel (Full HD)
Screen size (HxV/mm)	930.24(H) x 523.26(V)
Recommended resolution	1920 x 1080 @60Hz
Power	AC 100- 240V 50/60Hz
Consumption (Typical)	75 W (typical)
Operating Temperature	0 ~ 40°C
Control type	Remote control, key control

Model	D46AM*
LCD	1920 x 1080 Pixel (Full HD)
Screen size (HxV/mm)	1018.08(H) x 572.67(V)
Recommended resolution	1920 x 1080 @60Hz
Power	AC 100- 240V 50/60Hz
Consumption (Typical)	90 W (typical)
Operating Temperature	0 ~ 40°C
Control type	Remote control, key control

Model	D55AM*
LCD	1920 x 1080 Pixel (Full HD)
Screen size (HxV/mm)	1209.6(H) x 680.4(V)
Recommended resolution	1920 x 1080 @60Hz
Power	AC 100- 240V 50/60Hz
Consumption (Typical)	140 W (typical)
Operating Temperature	0 ~ 40°C
Control type	Remote control, key control

Model	D70AM*
LCD	1920 x 1080 Pixel (Full HD)
Screen size (HxV/mm)	1549.44(H) x 871.56(V)
Recommended resolution	1920 x 1080 @60Hz
Power	AC 100- 240V 50/60Hz
Consumption (Typical)	300 W (typical)
Operating Temperature	0 ~ 40°C
Control type	Remote control, key control

• Above specification may be changed without prior notification for quality improvement.

Specifications

Model	D42EM*
LCD	1920 x 1080 Pixel (Full HD)
Screen size (HxV/mm)	930.24(H) x 523.26(V)
Recommended resolution	1920 x 1080 @60Hz
Power	AC 100- 240V 50/60Hz
Consumption (Typical)	110 W (typical)
Operating Temperature	0 ~ 40°C
Control type	Remote control, key control

Model	D55EM*
LCD	1920 x 1080 Pixel (Full HD)
Screen size (HxV/mm)	1209.6(H) x 680.4(V)
Recommended resolution	1920 x 1080 @60Hz
Power	AC 100- 240V 50/60Hz
Consumption (Typical)	185 W (typical)
Operating Temperature	0 ~ 40°C
Control type	Remote control, key control

Model	D46EM*
LCD	1920 x 1080 Pixel (Full HD)
Screen size (HxV/mm)	1018.08(H) x 572.67(V)
Recommended resolution	1920 x 1080 @60Hz
Power	AC 100- 240V 50/60Hz
Consumption (Typical)	110 W (typical)
Operating Temperature	0 ~ 40°C
Control type	Remote control, key control

Model	D70EM*
LCD	1920 x 1080 Pixel (Full HD)
Screen size (HxV/mm)	1549.44(H) x 871.56(V)
Recommended resolution	1920 x 1080 @60Hz
Power	AC 100- 240V 50/60Hz
Consumption (Typical)	300 W (typical)
Operating Temperature	0 ~ 40°C
Control type	Remote control, key control

• Above specification may be changed without prior notification for quality improvement.

< REMOTE CONTROL SPEC >

1. REMOTE CONTROL WAVE FORM

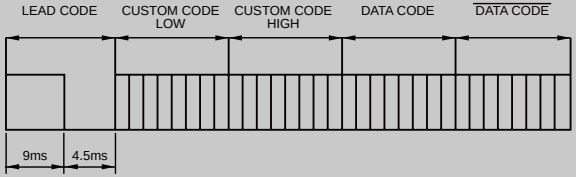
1) Remote Control System Infrared rey system

fosc=455KHZ fc=fosc/2=37.917KHZ

2) Signal code

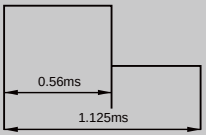
• Transmission

- One pulse

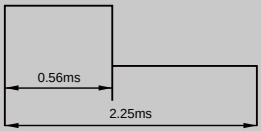


- Bit Desciption

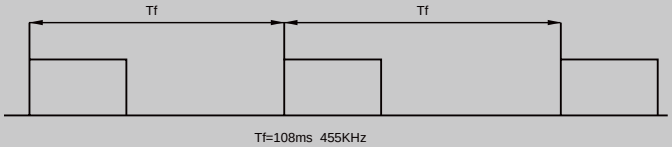
Bit “0”



Bit “1”



- Flame Interval

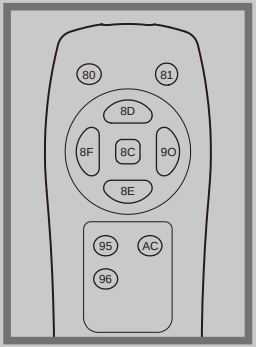


2. REMOTE CONTROL KEY CODE TABLE

Custom Code : 7788H

KEY	DATA
POWER	0x80
MUTE	0x81
MENU	0x95
EXIT	0x96
SOURCE	0xAC
ENTER (↵)	0x8C
UP	0x8D
DOWN	0x8E
LEFT	0x8F
RIGHT	0x90

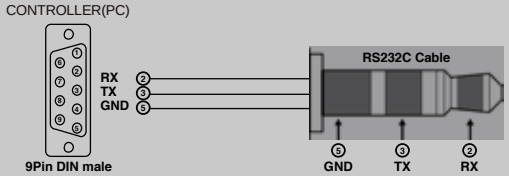
DATA LAYOUT



< RS232C COMMAND SPEC >

1. CONFIGURATION

1) SPEED : 9600 Baud/s, 8 bit, No parity, 1 Stop bit.
2) Cable Connection



2. COMMAND FORMAT

- SET ID must select from the OSD menu and can't be select through the COMMAND.
- Only one unit can be set as Master unit, select Master ON from the OSD Menu. (DEFAULT OFF)
- For viewing COMMAND from Hyper Terminal windows, One unit must set as MASTER ON

1) Data Format

Item	HEADER	SET ID	COMMAND	END
askii	did:	xxx- or all-	follow 2.2	.
hexa	0x64 0x69 0x64 0x3A	0x78 0x78 0x78 0x2D or 0x61 0x6C 0x6C 0x2D	follow 2.2	0x2E

HEADER : Command head code.
SET ID : Set ID.
all unit control - "xxx- or all-"
unit no : "01 ~ 99"
COMMAND : follow 2.2
END : inform end of send data.

Example. 1 To power on Set ID No 1

Item	HEADER	SET ID	COMMAND	END
askii	did:	01-	pn	.
hexa	0x64 0x69 0x64 0x3A	0x30 0x31 0x2D	0x70 0x6E	0x2E
decimal	100 105 100 58	48 49 45	112 110	46

2) Command Type

Item	Command	Description	hexa
Power	**pn**	power on	0x70 0x6E
	pf	power off	0x70 0x66
	ps	on, video out / on, video in / off, video out / off, video in / on, dpms mode	0x70 0x73
Input - Source	**sd**	input hdmi	0x73 0x64
	sv	input dvi	0x73 0x76
	sp	input pc	0x73 0x70
	sc	input component	0x73 0x63
	sa	input av	0x73 0x61
	sdp	input Droid PC	0x73 0x64 0x70
	sr	input DisplayPort	0x73 0x72
	is	input source status	0x69 0x73
Picture	**pc**	picture size : 4:3	0x70 0x63
	pw	picture size : wide	0x70 0x77
	at	pc auto	0x61 0x74
	rt	?x?, h?, v? ex) "1920x1080, h47, v60"	0x72 0x74
Audio	**zb**	volume up	0x7A 0x62
	zc	volume down	0x7A 0x63
Error	**"Error"**		
Return 232	**rf**	Return 232 off	0x72 0x66
	ro	Return 232 on	0x72 0x6F
	If you want receive return message in power off or DPMS. To set return 232 "ON".		